

Rights or Fights

Goals: To help students understand the four basic doctrines of groundwater use law. To encourage students to consider the implications of the four groundwater doctrines by allowing them to act as a judge and use the doctrines to decide a historical groundwater case.

Subjects: Social Studies, Science

Grades: 9 (and up)

DPI Objectives: SC: D1-D5

EH: A1, A2, B4, C1, C3

SS: A1, B1-B3, C1, D1-D3

Materials:

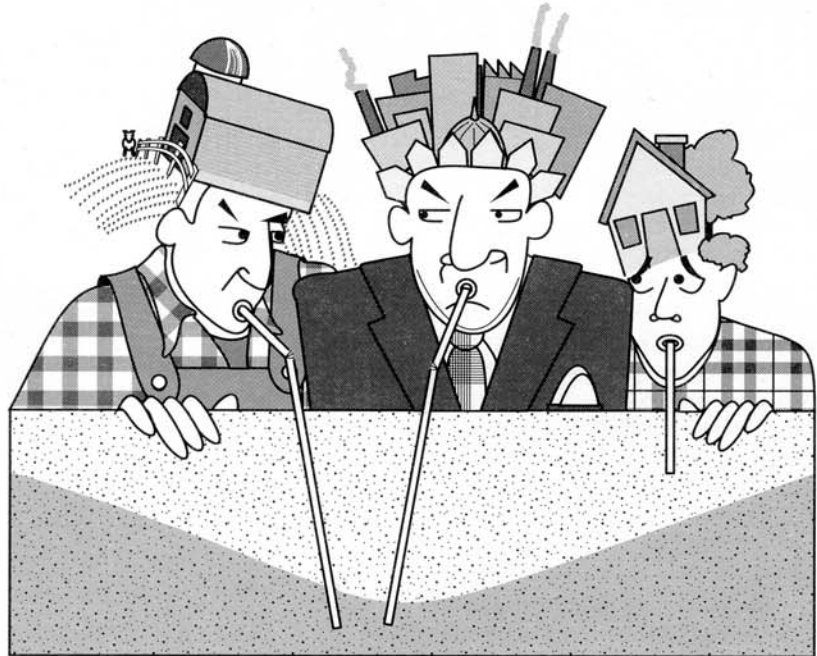
❖ Rights or Fights activity sheet

Background: Who owns groundwater? Who has the right to use it? How much can they use? Should they be allowed to change its quality? Can water rights be sold? As with any limited resource, we must have rules and laws to regulate groundwater use and protect its quality. Making groundwater laws is not easy. Courts and law makers must consider competing uses, water availability and water quality. Laws must evolve as uses, availability and quality change.

Groundwater rights involve two separate issues, **WATER USE** (quantity) and **WATER QUALITY**. In Wisconsin, groundwater quality is generally covered by legislative law. Legislative law is created by the State's legislative or administrative processes. Legislative laws include constitutions, treaties, statutes, administrative rules and regulations, and ordinances.

Groundwater quantity laws, on the other hand, are generally based on "common law." Common law is law which is developed through court case decisions. A judge establishes societal values as law by issuing decisions in cases that he/she hears. Common law may change as societal values change. This activity focuses on the evolution of Wisconsin's groundwater common law.

Over time, four doctrines of groundwater use law have evolved in the United States. Each state treats groundwater conflicts differently, relying on one or more of the following doctrines as the basis for its groundwater use law.



1. English Rule:

Groundwater use is a property right. Under this doctrine, a land owner has the right to use the water under her land at any time and for any purpose. She may also sell or allow others to use her water. This rule grew out of the belief that groundwater movement could not be understood and that landowners couldn't anticipate the consequences of pumping groundwater.

2. Reasonable Use Rule:

Groundwater use is a property right. But water may only be used for "reasonable" purposes. A property owner may use the water on the land from which it came or elsewhere, as long as his use is reasonable in comparison to the water needs and uses of his neighbors.

3. Correlative Rights Rule:

All land owners in an area have a right to use groundwater. The amount of water each land owner can use depends on the amount of land she owns. She cannot pump more than her share of water, even for use on her own land if other water users don't have enough water to meet their needs.

4. Appropriation Rule:

Sometimes called the rule of "first in time, first in right." Groundwater rights under this doctrine are not connected to

land ownership. A person has a right to use groundwater if he has obtained it and put it to a beneficial use such as irrigation, mining, manufacturing, power generation, raising fish, watering farm animals, household or recreational uses. (Water uses may be assigned priority.) Water may be used on the land from which it came or elsewhere. Appropriation rights may be sold or given to others.

Under the Appropriation Doctrine, in times of water shortage, those who have used the water longest (i.e. those who have the earliest "appropriation date") may use all the water they have used in the past and newcomers may be left with little or no water. If a person stops using his share of water for a beneficial purpose, he may lose the right to use the water at all.

With a better understanding of groundwater movement and the water cycle, there has been a general trend from viewing groundwater as **private property** to recognizing it as a valuable **public resource**. The two Wisconsin landmark cases used for this activity, *Huber v. Merkel* and *State v. Michels Pipeline*, illustrate this trend. Another recent trend in groundwater use law is increased legislation rather than a dependence on case law.



Until 1974, Wisconsin's groundwater law was based on the English Rule. In 1903, a Wisconsin Supreme Court decision (in *Huber v. Merkel*) established that a land owner has an absolute property right to use groundwater under his/her land. The judge determined that a land owner may use his water for any purpose, including malicious waste.

As you can probably imagine, the 1903 decision was heavily criticized, but the English Rule stood until 1974, when the State took Michels Pipeline Construction, Inc. to court for harming local wells and building foundations when they dewatered soil for construction of a sewage pipeline. The Court in *State of Wisconsin v. Michels Pipeline* determined that such injury could be considered a "public nuisance." The 1903 decision was overruled as the judge found in favor of the State on the basis of a Modified Reasonable Use Rule. This doctrine is the basis of Wisconsin's groundwater use common law today. (*Huber v. Merkel* and *State v. Michels Pipeline* are outlined in greater detail on Rights or Fights activity sheet.)

Groundwater use is still considered a property right under Wisconsin's Modified Reasonable Use Rule, but a landowner may withdraw and use groundwater only for beneficial purposes and only if pumping does not cause unreasonable harm to his/her neighbors. "Unreasonable" harm includes lowering the water table, reducing artesian pressure and direct effects on water levels of streams and lakes.

Procedure:

1. Explain the four doctrines of groundwater rights law.

2. Read aloud *Huber v. Merkel* from activity sheet. (It may be helpful to explain flowing artesian wells.)

3. Discuss *Huber v. Merkel*.

- ❖ Why did Mr. Huber take Mr. Merkel to court?
- ❖ What is a flowing artesian well?
- ❖ How did Mr. Merkel's actions affect neighboring wells?
- ❖ What did the State Supreme Court decide in this case?
- ❖ On what groundwater doctrine was The Court's decision based?

4. Read aloud *State of Wisconsin v. Michels Pipeline Construction, Inc.* from activity sheet.

5. Discuss *State v. Michels Pipeline*.

- ❖ Why did the State take Michels Pipeline Construction Co. to court?
- ❖ What did dewatering the soil do to local wells and properties?
- ❖ What did the State ask that the company do to correct this problem?
- ❖ What did the Court decide in this case?
- ❖ On the basis of what groundwater doctrine was this case decided?
- ❖ What is the difference between this doctrine and the one used to decide *Huber v. Merkel*? What are the similarities?
- ❖ How would this case have been decided on the basis of the old English Rule Doctrine?
- ❖ How did the *State v. Michels Pipeline* case change the course of groundwater use law in Wisconsin?

6. Ask students to imagine that they're on the 1903 Wisconsin Supreme Court. Work in small groups and assign a scenario (a-c on the activity sheet) to each group. Tell students that they are responsible for deciding *Huber v. Merkel*. Complete the appropriate section of your activity sheets.

7. As a class, complete scenario d.

8. Discuss your answers.

- ❖ How would the case have been decided using Wisconsin's Modified Reasonable Use Doctrine? The Correlative Rights Doctrine? The Appropriation Doctrine?
- ❖ Which doctrine do you think is the most fair for deciding scenario d? Why?
- ❖ Do you think water availability influences the groundwater doctrine followed by individual states? If so, how?
- ❖ In some states groundwater and surface water laws are based on different doctrines. What problems might result if a state used the Appropriation Doctrine for its surface water and the English Rule for its groundwater? (Hint: think about the water cycle!)

Going Beyond:

1. Invite an attorney or other Wisconsin water law expert to discuss laws pertaining to groundwater quality in Wisconsin. Discuss *State of Wisconsin v. Michels Pipeline*. What laws would the Court need to consider if the State's complaint was groundwater *contamination* by the construction company?

2. Wisconsin follows the modified Reasonable Use Doctrine. Research and report on a state that follows the English Rule, Appropriation or the Correlative Rights Doctrine. How is this state different from Wisconsin? What historical and/or environmental factors do you think influenced groundwater use laws in that state?

3. Collect newspaper and magazine articles on groundwater-related issues in Wisconsin. Using a map of the state, make a display of issues by location. Discuss related groundwater laws, personal costs, responsibility, solutions, etc.

4. Collect newspaper and magazine articles about groundwater-related issues in a western state (e.g. California or Colorado). Using a map of the state, make a display of issues by location. How are the problems similar to those in Wisconsin? How are they different? Compare personal costs, responsibility, solutions, etc.

5. Research and report on which governmental agencies (municipal, county, state, and federal) regulate and protect groundwater. How do these groups work together? Discuss roles that other groups play. (see *Groundwater Supplement* p. 18-19.)

6. Research and report on how water resources have influenced the history of your community. How has water helped your community develop? Has groundwater played a special role? Many areas of Wisconsin are known for having "healthful" spring water. Is part of your community's history related to spring water? How does your community feel about protecting groundwater?

7. Groundwater is important in the production and processing of many Wisconsin products such as cheese, beer and paper. Investigate some of these products. How much water do they use? How clean should the water be? Are there laws or regulations that govern the quality of the water they use?

Groundwater Law activity sheet

Over time, four doctrines of groundwater rights have evolved in the United States. Each state treats groundwater conflicts differently, relying on one or more of the following doctrines as the basis for its groundwater use law.

1. English Rule:

Groundwater use is a property right under this doctrine. A land owner has the right to use the water under her land at any time and for any purpose. She may also sell or allow others to use her water.

2. Reasonable Use Rule:

Groundwater use is a property right, but water may only be used for “reasonable” purposes. A property owner may use the water on the land from which it came or elsewhere, as long as his use is reasonable in comparison with neighbors needs and uses.

3. Correlative Rights Rule:

All land owners in an area have a right to use groundwater. The amount of water each land owner can use depends on the amount of land she owns. She cannot pump more than her share of water, even for use on her own land if neighbors don’t have enough water to meet their needs.

4. Appropriation Rule:

This is the rule of “first in time, first in right.” Groundwater rights under this doctrine are not connected to land ownership. A person has a right to use groundwater if he has obtained it and put it to a beneficial use such as irrigation, mining, manufacturing, power generation, raising fish, watering farm animals, household or recreational uses. Water may be used on the land from which it came, or elsewhere. Appropriation rights may be sold or given to others.

Under the Appropriation Doctrine, in times of water shortage, those who have used the water longest may use all the water they have used in the past and newcomers may be left with little or no water. If a person stops using his share of water for a beneficial purpose, he may lose his right to use the water at all.

Groundwater Law in Wisconsin

There have been several key cases establishing Wisconsin’s groundwater use law. Two of them are described here for you:

1. Huber vs. Merkel—Wisconsin Supreme Court 1903:

In 1903 a decision was made in the Wisconsin Supreme Court that influenced groundwater law for more than 70 years. This case involved two farmers, Mr. Huber and Mr. Merkel, who lived about 1/2 mile from each other. Both farmers owned flowing artesian wells.

Mr. Merkel had two wells on his property, one dug in 1899 and the other in 1900. Mr. Merkel used some of his water for a fish pond and some he sold to neighbors. Mr. Huber, like other land owners in the area, capped his well so that the water would not flow out when he was not using it. Mr. Huber’s well was dug in 1899 and his farm is 20 feet higher than Mr. Merkel’s.

There was enough water for both farms and neighboring homes until Mr. Merkel began letting his wells flow freely, maliciously wasting water to harm his neighbors. When Mr. Merkel’s wells were allowed to flow, water levels



dropped in all neighboring wells and some of the wells stopped flowing. Mr. Huber took Mr. Merkel to court to try to stop him from wasting water from his artesian wells.

The case was fought all the way to the Wisconsin Supreme Court. In 1903, the Supreme Court decided that the English Rule used in Wisconsin at the time meant that a land owner had an absolute property right to use water under his/her property. Since Mr. Merkel had an absolute right to use groundwater under his property, he could consume, sell or even waste water from his wells if he wanted. So Mr. Merkel won the case and Mr. Huber probably had to find a way to pump water from his once-flowing artesian well.

2. State of Wisconsin vs. Michels Pipeline Construction, Inc.—Wisconsin Supreme Court, 1974:

In 1972, Michels Pipeline Construction, Inc. was hired by the Metropolitan Sewerage Commission of Milwaukee to install a sewer line for the city. To bury the sewer pipe, Michels Pipeline had to lower the water table to 40 feet depth. The company dewatered the soil by pumping a lot of water (5,500 gallons per minute) in a nearby city.

When the water table was lowered some wells in the area dried up, others yielded less water, some began having water quality problems, and some foundations, basement walls and driveways began to crack because the land under them sank as the groundwater was drawn out.

The State of Wisconsin took Michels Pipeline to court because of the problems caused by dewatering the soil. The State wanted the Court to make the company construct the sewer line in a different way so the neighbors' water supply and property wouldn't be affected. They also wanted Michels Pipeline to fix the damage that had already been done.

The Court determined that pumping so much groundwater created a "public nuisance" and that by depleting neighboring wells, Michels Pipeline was actually taking property from people who lived in the area. The Court changed the course of Wisconsin's groundwater law by overruling the Huber v. Merkel decision. They felt that the old Common Law Doctrine was no longer appropriate for Wisconsin's needs. The case was decided instead on a modified Reasonable Use Rule. Our present groundwater laws are based on this rule.

Under the modified Reasonable Use rule a landowner may pump water from his/her land and use it for any beneficial purpose unless:

- a) pumping the water causes unreasonable harm to someone else by lowering the water table or
- b) pumping has a direct and substantial effect on a lake, stream or wetland.

It is still up to the courts to determine what is "unreasonable harm" and what is a "direct and substantial effect" on a lake or stream.

1. Let's go back to 1903. Imagine that you're on the Supreme Court and you are responsible for deciding the The Huber v. Merkel case.

a) Write a short paragraph explaining how you would decide the case using Wisconsin's modified Reasonable Use doctrine.



b) States, such as California, use the Correlative Rights doctrine. You are a Supreme Court Judge in California. Explain your decision on Huber v. Merkel, using the Correlative Rights doctrine.

c) You're on the Colorado Supreme Court in Denver. Explain how you would decide Huber v. Merkel, using Colorado's Prior Appropriation Rule.



d) Now, let's make your job a little more difficult. Assume that Mr. Merkel is not wasting any water—all of the water he lets run from his well is used to farm and to water a large herd of cattle. Choose the doctrine (or a combination of doctrines) to reach what you feel is the **most fair** decision in this case. Consider the positions of Mr. Merkel, Mr. Huber and all the other land owners. Remember, your decision could affect Wisconsin law for many years to come.
